



$$\dots^2 + 1,600 = 50^2$$

$$7,014 \div 14$$

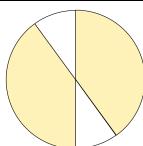


In 2018, a Zoo had 520,000 visitors.

30% of the people visited in July.  
35% of the people visited in August.

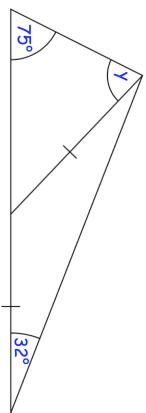
How many people visited the Zoo in the rest of the year?

In this circle, each shaded part is  $\frac{2}{5}$  of the area of the circle.



The two white parts have the same area.  
What fraction of the circle is **one** of the white areas?

Find the size of angle y



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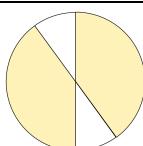


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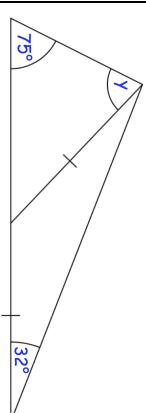
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$$\frac{\square}{\square} = 0.875$$

$$71 \times 254$$

There are 80 children in Year 6.

16 children have watched both the films  
Frozen and Tangled.

28 children have watched Tangled.

Twice as many children have watched  
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How many children have not watched  
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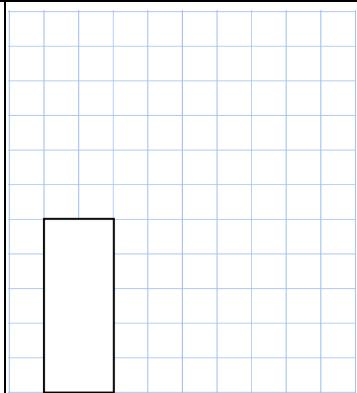


What percentage of 20 is 9?

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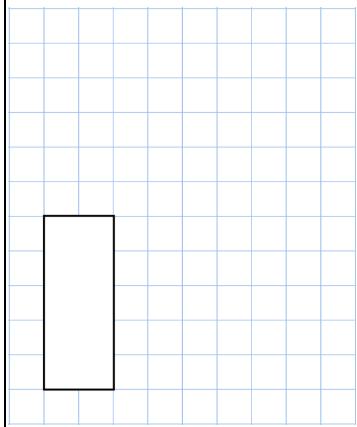
$$\frac{\square}{\square} = 0.05$$

$$20 - 4^2$$



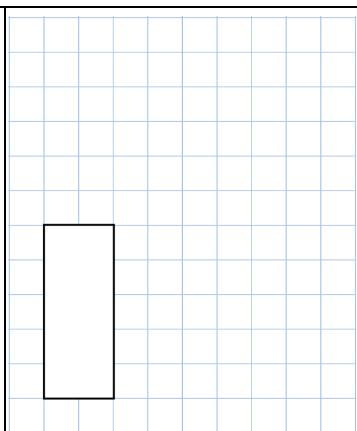
On a dice, the opposite faces always have a sum of 7.

Draw dots on the three empty faces of the net so that it could fold up to make a dice.



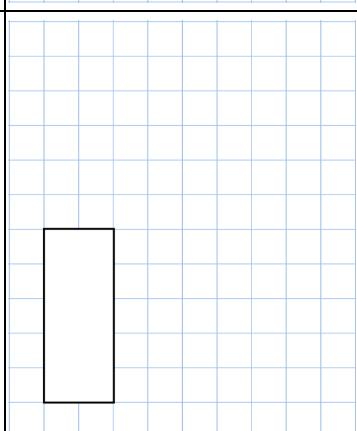
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<p>This diagram shows a park</p> <table border="1"> <tr> <td>Play area</td><td>Tennis court</td></tr> <tr> <td><math>\frac{3}{5}</math></td><td><math>\frac{1}{4}</math></td></tr> <tr> <td colspan="2">Picnic area</td></tr> </table>	Play area	Tennis court	$\frac{3}{5}$	$\frac{1}{4}$	Picnic area		<p>Work out the fraction of the park that is the picnic area.</p>
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$$\frac{4}{5} - \frac{1}{12}$$

$$40\% \text{ of } 90$$



Lucy, Jenny and Harriet share some money.

Lucy gets  $\frac{1}{3}$  of the money.

Jenny gets  $\frac{1}{4}$  of the money.

Harriet gets the rest of the money.

Lucy gets £16

How much more money does Harriet get than Jenny?



Lucy, Jenny and Harriet share some money.

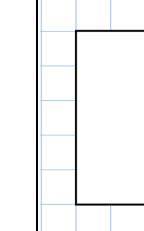
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341°

300°

335°

341°

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335°

729 is both a square number and a cube number.

Find two other numbers that are both square numbers and cube numbers

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$$3,276 \div 13$$

$$(10 - 4)^2$$

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$$(10 - 4)^2$$

What is the smallest possible number Timothy could be thinking of?

I am thinking of a whole number.  
Rounded to the nearest 100  
it is 600.

What is the largest possible number Timothy could be thinking of?



For every 5 50p coins, Laura has 4 20p coins.

Laura has £56.00 in 20p coins.

How much money does Laura have altogether?

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$$\frac{6}{11} \div 2$$

$$\begin{array}{r} 4 \ 9 \ \boxed{1} \ 8 \ 1 \ 3 \\ \hline \end{array}$$

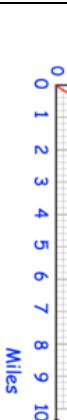
$$w + 8 = 13$$

Work out the value of  $w$

This graph can be used to change between miles and kilometres.



Change 10 miles into kilometres



Change 40 kilometres into miles

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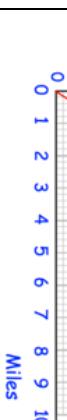
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$$6.2 \times 3,000$$

$$20\% \text{ of } 52$$

$$6.2 \times 3,000$$

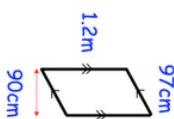
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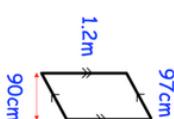
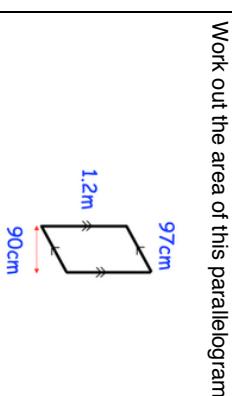
What was the depth of the river after 10 days?



How long did it take the river to go from a depth of 16cm to 11cm?

cm<sup>2</sup>

Work out the area of this parallelogram

cm<sup>2</sup>

What was the depth of the river after 10 days?



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$627 \times 48$

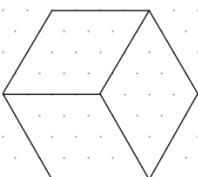
$-15 - 16$

$627 \times 48$

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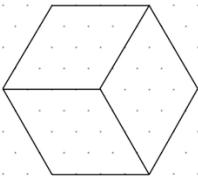
Here is a drawing of a cube on an isometric grid.

Draw a cuboid that has the **same** volume of the cube.



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Here are five number cards.

The mean of the numbers on the five cards is 12.

13
5
18
2

Work out the missing number

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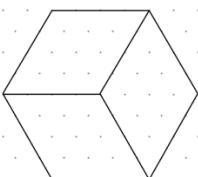
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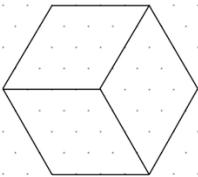
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$1,072 \times 24$

$4,741 \div 11$

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Write 15% as a fraction

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Solve this equation

$9x + 10 = 7x + 32$

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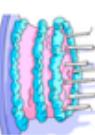


$$15\% \times 5,000$$

$$\frac{1}{2} \times 47$$

A cake has a mass of 600g.  
36% of the cake is sugar.

How many grams of sugar are in the cake?



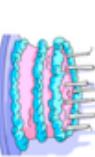

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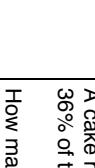

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The letters **a**, **b**, **c** and **d** stand for numbers.

The sum of each row is given

a	a	a	a	24
a	a	b	b	28
b	c	c	c	29
a	b	c	d	31

Find the values of **a**, **b**, **c** and **d**

<b>a</b> =
<b>b</b> =
<b>c</b> =
<b>d</b> =

$$15\% \times 5,000$$

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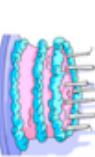
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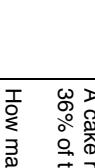

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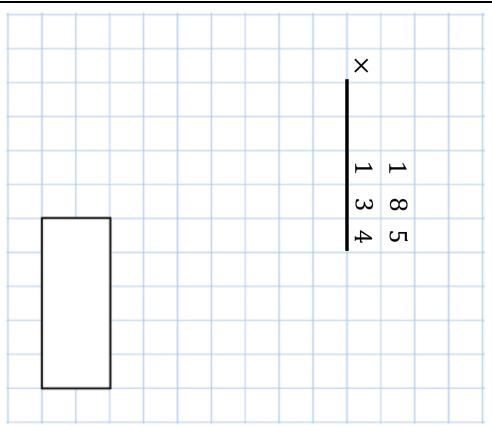
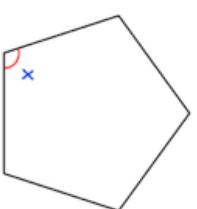
$$0.08 \times 500$$

$$\begin{array}{r} 1 & 8 & 5 \\ \times & 1 & 3 & 4 \\ \hline \end{array}$$



Here is a regular pentagon.

Find the size of each angle



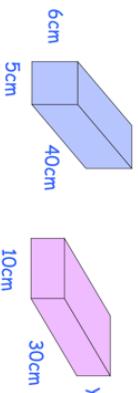
$$n = 18$$

What is  $20n + 70$ ?

Cuboid A and Cuboid B have the same volume.  
Find the height of cuboid B.

Cuboid A

Cuboid B



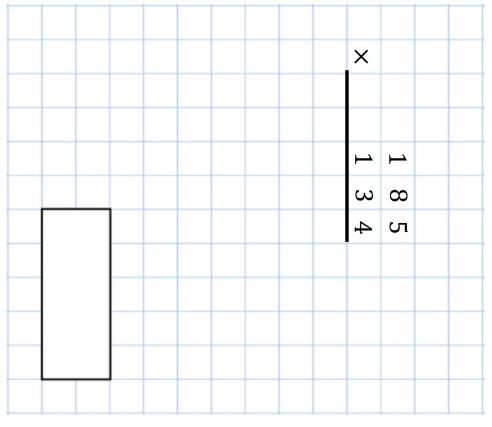
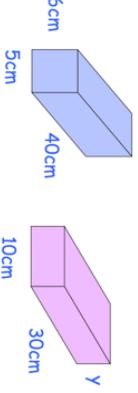
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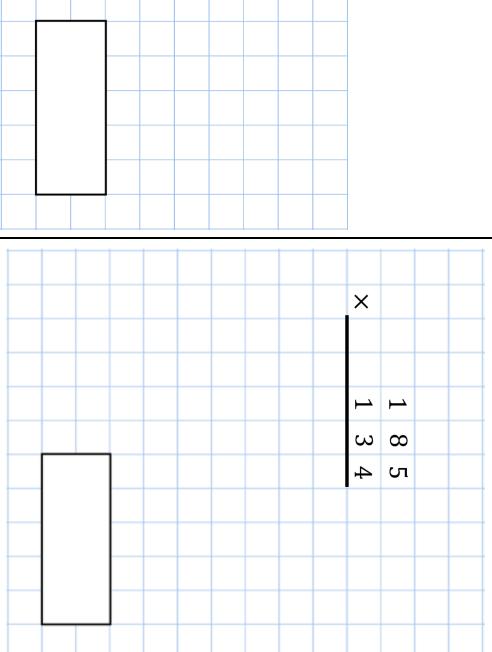
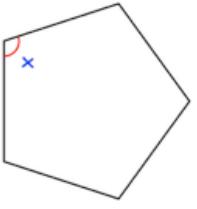
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Find the size of each angle







$$\frac{9}{10} \div 2$$

45% of 260

Work out the value of  $y$

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$$3y = 24$$

Work out the value of  $y$

The time taken for 4 friends to complete a crossword are

14 minutes
1,200 seconds
three quarters of an hour
25 minutes

Adam organised a charity concert at a

The hall holds 35 rows of 42 seats.  
There were 50 empty seats.

$$120 - 30 \div 6$$

$$3,914 \times 27$$

$$120 - 30 \div 6$$

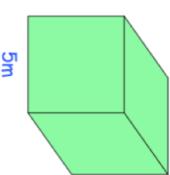
$$3,914 \times 27$$

Work out the volume of this cube.



Find three different prime numbers with a sum of 43

$$\boxed{\quad} + \boxed{\quad} + \boxed{\quad} : \\ \text{prime number} \qquad \text{prime number} \qquad \text{prime number}$$

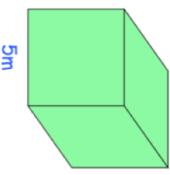


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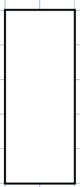
Write the year MMXVI in figures



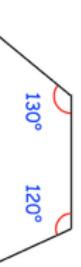


$$180 \times \frac{4}{5}$$

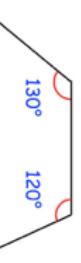
$$\begin{array}{r} 18 \\ \times 163 \\ \hline 1128 \end{array}$$



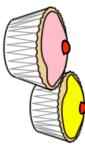
Find the size of angle x.



Find the size of angle x.



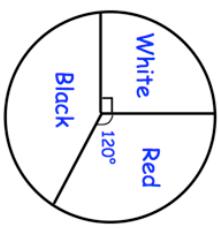
Burt is making cupcakes.  
He has made 400 cupcakes.  
Burt places the cupcakes in boxes of 18.



How many boxes can he fill?

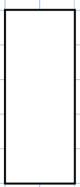
The pie chart shows information about the 72 counters in a bag.

How many counters are black?

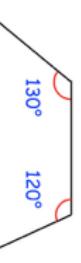


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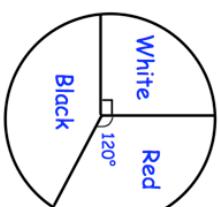
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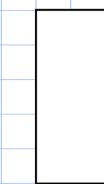
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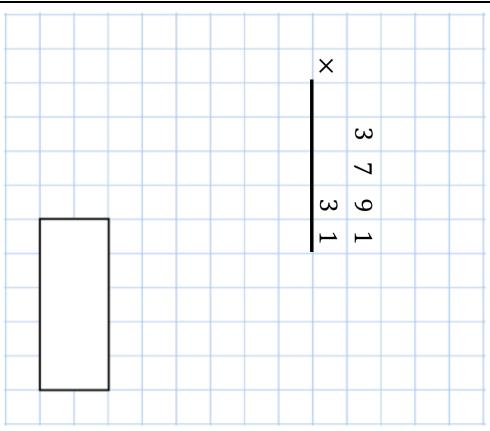
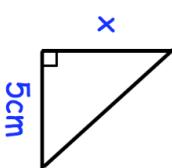
$$5,040,118 - 1,876,094$$

$$\begin{array}{r} 3 & 7 & 9 & 1 \\ \times & & & \\ \hline & 3 & 1 \end{array}$$

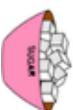


The area of the triangle is  $21\text{cm}^2$

Find the height of the triangle,  $x$



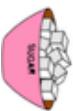
A new snack bar contains 12g of sugar.



$\frac{3}{10}$  of the snack bar is sugar.

Work out the mass of the snack bar

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Work out the mass of the snack bar

Work out the value of  $u$

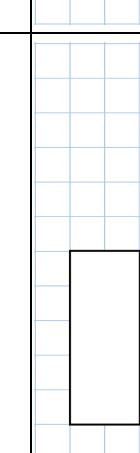
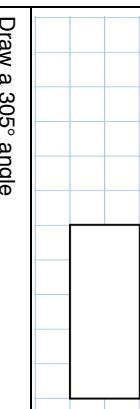
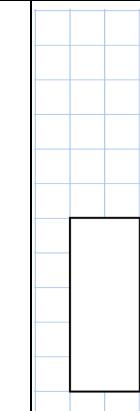
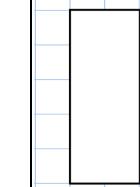
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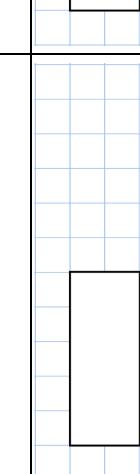
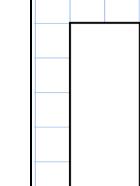
$$2u - 9 = 6$$

$31 \times 2.8$ 

5% of 630

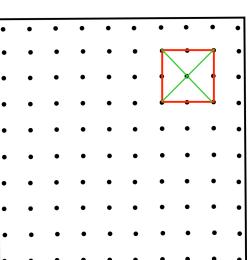
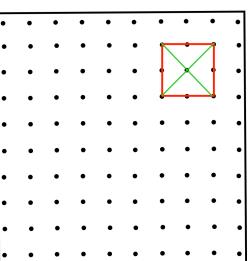
 $31 \times 2.8$ 

5% of 630



The diagonals of a square cross at right angles.

On the grid, draw a different type of quadrilateral where the diagonals do not cross at right angles





$$\frac{5}{9} \times \frac{1}{2}$$

$$40 - (1 + 3)^2$$

A bus travels 180 miles at a speed of 40 miles per hour.

How long does the journey take?



$$\frac{5}{9} \times \frac{1}{2}$$

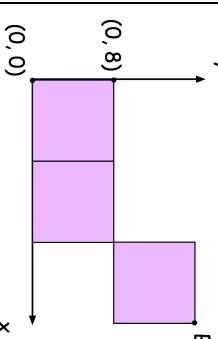
$$40 - (1 + 3)^2$$

A bus travels 180 miles at a speed of 40 miles per hour.

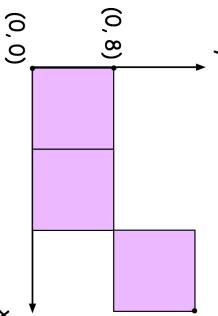
How long does the journey take?



Find the lowest common multiple (LCM) of 18 and 20



Three squares are placed on a grid.



Three squares are placed on a grid.



$$0.6 \times 2,000$$

$$1,326 \div 17$$



Matthew says that

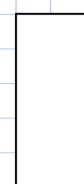
$$9 + 4 \times 2 = 26$$

Is Matthew correct?



$$0.6 \times 2,000$$

$$1,326 \div 17$$



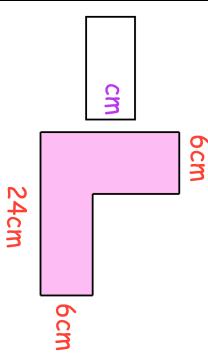
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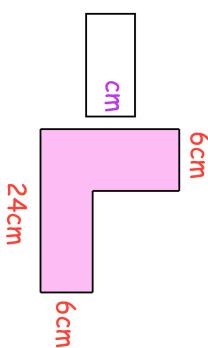


Work out the difference between the square root of 64 and the square root of 169.



The perimeter of this shape is 86cm  
Find the missing length

Work out the difference between the square root of 64 and the square root of 169.

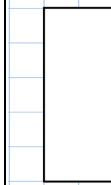


The perimeter of this shape is 86cm  
Find the missing length



$$80\% \times 700$$

$$4 \frac{1}{5} - \frac{1}{3}$$

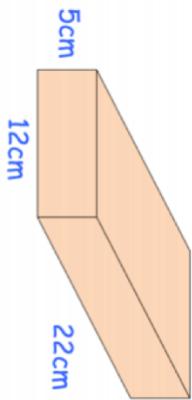


Shape	Angles add up to
Triangle	180°
Quadrilateral	360°
Pentagon	
Hexagon	

Work out the value of  $k$ 

$$16 - k = 5$$

Work out the volume



$$80\% \times 700$$

$$4 \frac{1}{5} - \frac{1}{3}$$

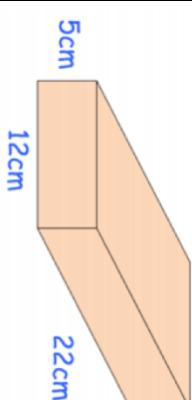


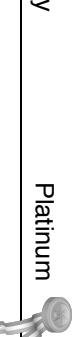
Shape	Angles add up to
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Quadrilateral	360°
Pentagon	
Hexagon	

Work out the value of  $k$ 

$$16 - k = 5$$

Work out the volume





$$1.76 \times 8$$

3
5
4
3
4
0

This sequence increases by an equal amount each time.

Find the three missing numbers.

This diagram shows two squares that overlap to make 3 regions.

A diagram showing three overlapping rectangles. The top-left rectangle is labeled '1' in red. The bottom-right rectangle is labeled '2' in red. The bottom-right rectangle is also labeled '3' in red.

$$\begin{array}{r} 35 \\ \hline 4340 \end{array}$$

A diagram on a grid. On the left, there is a large empty rectangle. On the right, there is a division problem:  $35 \overline{)4340}$ . The divisor is 35, and the dividend is 4340. The quotient is 123, and the remainder is 0.

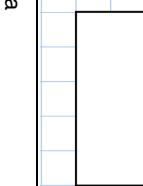
This diagram shows two squares that overlap to make 3 regions.

What is the greatest number of regions that can be made using two overlapping squares?

A diagram consisting of three overlapping rectangles. The top-left rectangle is labeled '1' in red. The bottom-right rectangle is labeled '2' in red. The bottom-right rectangle is also labeled '3' in red, partially overlapping the label '2'.

$$\frac{1}{8} \div 4$$

$$-60 + 125$$

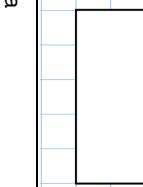


Find the shaded area



$$\frac{1}{8} \div 4$$

$$-60 + 125$$



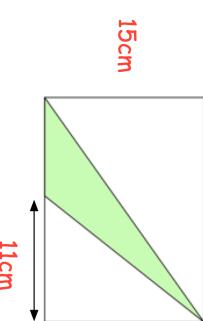
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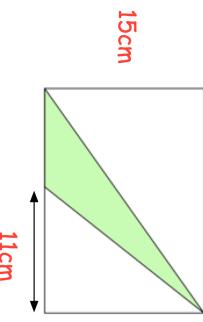
$$5x + 20 = 35$$

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Convert 3.5 kilometres into millimetres



Work out the value of x



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Convert 3.5 kilometres into millimetres

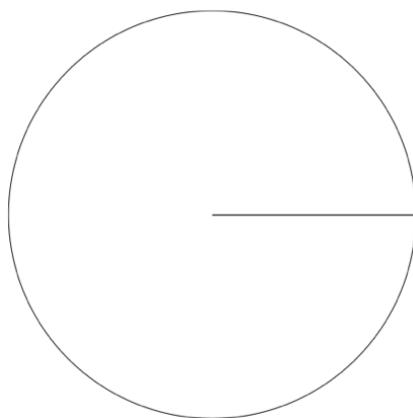
$$\frac{7}{20} = \boxed{\phantom{00}}\%$$

$$2 \ 4 \boxed{3 \ 8 \ 8 \ 8}$$

%

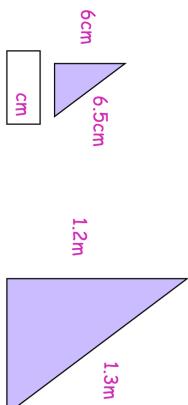
Draw a pie chart to show this information

Breed	Frequency
Spaniel	11
Poodle	7
Greyhound	4
Jack Russell	14



The two triangles are similar.

Work out the missing length



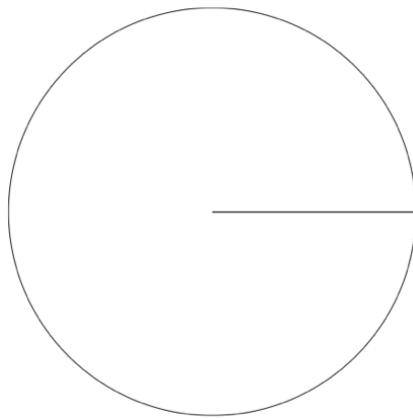
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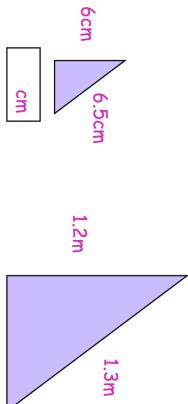
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$$0.065 = \boxed{\phantom{00}}\%$$

$$\frac{\boxed{\phantom{000}}}{40} = 0.3$$

%

$$42 \times 31 = 1,302$$

$$42 \times 62$$

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$$42 \times 62$$

%

$$21 \times 31$$

$$42 \times 32$$

$$21 \times 31$$

$$42 \times 32$$

A sequence of numbers starts at 15 and follows the rule  
"treble the last number and add 4"

15    49    151    457 ...

The number 4,129 is in the sequence.  
Calculate the number which comes immediately before 4,129.

A sequence of numbers starts at 15 and follows the rule  
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$$961 \times 223$$

$$\frac{\square}{\square} = 62.5\%$$

### Stuffed Turkey

Serves 4

Turkey	500g
Red Onion	1
Garlic Cloves	2
Chestnut Mushrooms	150g
Spinach	140g
Chicken Stock	300ml

Dylan wants to make Stuffed Turkey for 14 people.

How much of each ingredient is needed?

Kelly has 7 pence more than Andy. Georgia has 8 pence less than Andy. They have £1.49 in total.

How much money does Andy have?

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